

Chiricahua Addition North Potential Wilderness Area Evaluation [PW-05-03-D1-010]

Area Overview

Size and Location: The Chiricahua Addition North Potential Wilderness Area encompasses 6,881 acres. The area is located adjacent to the existing Chiricahua Wilderness. This area would be an expansion of the Chiricahua Wilderness that is now 87,700 acres, bringing the overall acres to 94,581 if recommended. This area is located in the Chiricahua Mountains, which is part of the Douglas Ranger District of the Coronado National Forest in southeastern Arizona (see Map 2 at the end of this document). The Chiricahua Addition North PWA is overlapped by 1,828 acres of the Chiricahua Inventoried Roadless Area, comprising 26 percent of the PWA.

Vicinity, Surroundings and Access: This potential wilderness area is approximately 100 miles southeast of Tucson, Arizona in the center of the Chiricahua Mountains. The potential wilderness area adjoins the Chiricahua Wilderness Area and is completely surrounded by National Forest System (NFS) lands, with the exception of the northwestern polygon. The closet private lands are located approximately 0.1 miles from the PWA boundary on the northwestern side, bordering the entire northwestern boundary of the National Forest. Nearby on the eastern side of the Chiricahua Mountain Range are the incorporated community of Douglas and several unincorporated communities (Apache, Sunizona, Chiricahua, Webb, and Elfrida).

State Route 80, located on the eastern side of the Chiricahua Mountains, connects Douglas, Arizona with several small unincorporated southeastern Arizona and southwestern New Mexico communities as well as with Interstate 10 near Road Forks, New Mexico. U.S. Highway 191, located on the western side of the Chiricahua Mountains, is the primary north-south artery from Interstate 10 south to Douglas and the International Boundary with Mexico.

Extending from Highway 181 on the western side, the Chiricahua Addition North PWA may be accessed via West Turkey Creek Road (NFS Road 41), Rock Canyon Road (NFS Road 4277), and Witch Canyon Road (NFS Road 4267). The easternmost polygon in the Chiricahua Addition North PWA may be accessed through Misfire Road (NFS Road 4854), which runs along the polygon's boundary.

National Forest System Trails that run through the six polygons that comprise the Chiricahua Addition North PWA include the Middle Witch Trail, Rock Creek Trail, Saulsbury Trail, Green Canyon Trail, Hoovey Canyon Trail, and Basin Trail. Several additional trails run through the existing Chiricahua Wilderness and connect these polygons. These trails provide nonmotorized trail access into the PWA and the designated Chiricahua Wilderness.

Although there appears to be adequate motorized and trail access to the Chiricahua Addition North Potential Wilderness Area, permanent legal public access may become an issue in the future. There is limited documented right-of-way for the existing road system exists across the non-Federal lands outside the proclaimed national forest boundary. Permanent legal public access to the NFS lands and the potential wilderness area in the Chiricahua Mountains will continue to be issue.

Boundaries: The PWA is composed of six individual polygons that are bound to the existing Chiricahua Wilderness. The northeastern polygon border was established along the Forest boundary and Pine Canyon Road (NFS Road 357). The boundary of the easternmost polygon follows Onion Saddle Cave Creek Road (NFS Road 42). The remaining outer boundary lines follow natural features, such as ridgelines and high points, in the Chiricahua Mountain Range.

Geography and Topography: The Chiricahua Addition North Potential Wilderness Area (PWA) consists of six small areas adjacent to the Chiricahua Wilderness Area in the central part of the arcuate, north- to northwest-trending Chiricahua Mountains. This mountain range is bounded on the east by the San Simon Valley and on the west by the Sulphur Spring Valley. The Chiricahua Addition North PWA is six irregularly shaped areas that are each approximately one to four miles wide in east-west direction and one to two miles wide in a north-south direction. Encompassing an area of 6,881 acres, the Chiricahua Addition North PWA consists of parts of the central Chiricahua Mountain range. This PWA is located entirely within the Douglas Ranger District, Coronado National Forest (CNF) and is located in Cochise County.

The six pieces of the Chiricahua Addition North PWA are situated in the central part of the Chiricahua Mountains and are bounded on the south and north by the Chiricahua Wilderness Area. Details of the topography are shown on the Fife Peak, Chiricahua Peak, Rustler Park, Portal, Stanford Canyon, and Portal Peak 7 ½ minute U.S. Geological Survey quadrangles. The northwest area extends from the Chiricahua Wilderness Area border at North Witch Canyon northward across Trunk Canyon to near the north border of the CNF at Crescent Tank. The southwest area extends from near Rock Canyon northward across a peak near Madrona Spring to the Chiricahua Wilderness Area southern border and extends eastward to near Rock Spring. The southeast area extends from Turkey Creek in the south to the Chiricahua Wilderness Area across Saulsbury Canyon and Ward Canyon, including Mormon Spring in Mormon Canyon northward to the southern border of the Chiricahua Wilderness area at the indentation along Turkey and Mormon Canyon. The south area extends across Rock Canyon to the north and east at the western border of the indentation in the Chiricahua Wilderness Area. The north area extends northward from the north border of the Chiricahua Wilderness Area to near the jeep trail up the west-trending Pine Canyon and crosses the northwest trending Green Canyon and the southern border of Hoovey Canyon. The northeast area extends from the road up Cave Creek near John Hands Campground at the northern boundary of the Chiricahua Wilderness Area northward to near the road that runs south from Pinery Canyon up to Rustler Park and beyond to near Long Park.

The minimum elevation in the various parts of the Chiricahua North Addition PWA is at 5,126 feet above sea level at the northwestern edge of the northwest area at Trunk Canyon Tank. The maximum elevation is 8,608 feet at an unnamed peak west of Madrona Spring in the southwest area. The topography is rugged with no canyons suitable for jeep trails.

The northern and central Chiricahua Mountains contain primarily mid-Tertiary volcanic and intrusive rocks, underlying Cretaceous-Jurassic sedimentary rocks, and Paleozoic sedimentary rocks, and some Proterozoic granite. The Middle Proterozoic (1400 Ma) porphyritic biotite granite to granodiorite (similar to Oracle Granite) crops out in the northern part of the central Chiricahua Mountains. The majority of the Chiricahua Addition North PWA is primarily Tertiary volcanic rocks (Tv) with some outcrops of Tertiary intrusive granite (Ti) in the southwest, south, southeast, and western part of the northeast areas. Cretaceous-Jurassic sedimentary rocks (KJs) crop out in the central and eastern parts of the northeast area. A small amount of Paleozoic sedimentary rocks (Pz) crop out in the north of the PWA. The Chiricahua Mountains are typical of the fault bounded, structurally uplifted blocks within the Mexican Highlands sub-province of the southern Basin and Range Province in southeastern Arizona.

No active mining claims are located in the parts of the Chiricahua Addition North PWA and the area does not have historic production of metals. The California mining district is located northeast of these areas and the same geology is present in the Chiricahua Addition North PWA, but as no historic mining has occurred here, the likelihood of future exploration is minor.

Appearance and Vegetation: Due to steep topography, the vegetation is largely unmodified pinyon, juniper and evergreen oak woodland communities. Species include Madrean evergreen oaks such as

Arizona white oak (*Quercus arizonica*), Emory oak (*Quercus emoryi*), gray oak (*Quercus grisea*), Mexican blue oak (*Quercus oblongifolia*) and Toumey oak (*Quercus toumeyi*). Other tree species [including border pinyon (*Pinus discolor*), Chihuahua pine (*Pinus leiophylla*) Arizona cypress (*Hesperocyparis arizonica*) and alligator juniper (*Juniperus deppeana*)] and interior chaparral species [including manzanita spp. (*Arctostaphylos* spp.), desert ceanothus (*Ceanothus greggii*), mountain mahogany (*Cercocarpus montanus*), silktassles (*Garrya wrightii*), Stansbury cliffrose (*Purshia stansburiana*), shrub live oak (*Quercus turbinella*) and sumacs (*Rhus* spp.)] may be present but do not codominate. The ground cover is dominated by warm-season grasses such as threeawns (*Aristida* spp.), blue grama (*Bouteloua gracilis*), sideoats grama (*Bouteloua curtipendula*), Rothrock grama (*Bouteloua rothrockii*), Arizona cottontop (*Digitaria californica*), plains lovegrass (*Eragrostis intermedia*), curly-mesquite (*Hilaria belangeri*), green sprangletop (*Leptochloa dubia*), muhly grasses (*Muhlenbergia* spp.) and Texas bluestem (*Schizachyrium cirratum*). Overstory canopy is less than 20 percent in about 60 percent of the community. Riparian areas have a variety of upland and obligate riparian species, including Fremont cottonwood (*Populus fremontii*), velvet ash (*Fraxinus velutina*), Arizona sycamore (*Platanus wrightii*), Arizona walnut (*Juglans major*) and willows (*Salix* spp.). Historically, some areas near canyon bottoms and in the more gentle terrain were logged to provide wood for nearby mines, but second growth has largely matured. The Horse2 fire burned most if not all of this area, much of it was classified as a high severity burn during the BAER assessment.

Current Uses: Visitors use this PWA for a variety of recreational activities. These lands lie adjacent to the Chiricahua Wilderness. The eight trails running through the area are used for hiking and horseback riding. Adjacent roads are used for motorized touring and dispersed uses such as camping and hunting. As a result of this activity on adjacent roads, visitors often venture into the PWA. Several existing roads within the PWA are currently in use, although they have been recommended for decommissioning. Crystal Cave, a popular spelunking site, lies within this PWA. Approximately ¼ mile from the PWA boundary there are two developed recreation sites, Sycamore Campground and Rustler Park Campground, and visitors to this area sometimes venture into the PWA. Topography is rugged, so there is very limited cross-country travel through the PWA. There are six grazing allotments within the Chiricahua Addition North Potential Wilderness Area. All of these allotments are active and valid permitted uses. This PWA lies along the Coronado National Forest boundary, and uses on adjacent BLM, state, and private lands may result in recreation and other uses within the PWA. This PWA is within Fire Management 1 (FMU 1). Fire management units divide the landscape into smaller geographic areas to describe the differences in management strategies based on safety considerations, as well as physical, biological and social characteristics. FMU 1 indicates fire adapted vegetation communities. Current fire management includes a full range of responses, from aggressive initial attack to managing natural ignitions to achieve desired forest plan objectives when risk is within acceptable limits.

Capability

Naturalness

Diversity of vegetation within the Chiricahua Addition North Potential Wilderness Area boundary ranges from desert grasslands to pinyon pine forests. Waterways within the area are considered free-flowing, although small impoundments possibly exist in some of the drainages. Night skies can be clearly seen and light pollution is not evident. The biological diversity in the area includes critical habitats and unique ecological conditions. The area provides habitats for jaguar and ocelot, lesser long-nosed bats, and Chiricahua leopard frogs. Mexican spotted owl Protected Activity Centers (PACs) and riparian vegetation communities are also located in this PWA. The area contains a diverse amount of natural resources, including desert grasslands, oak trees, pinyon pines, and junipers. Given the variety of natural resources located within this area, the PWA provides numerous additive values to the existing Chiricahua

Wilderness. Although no rivers or streams have been sampled, there are no suggested or known water quality issues. Lehmann's lovegrass can be found in isolated spots on the far northwest corner of the PWA, a feature that detracts somewhat from the area's wilderness capability. Nonnative bullfrogs have been located in West Turkey Creek.

Undeveloped

The only signs of human activity on the Chiricahua Addition North Potential Wilderness Area are evidenced by fences and system trails, therefore the area appears largely undeveloped.

Opportunities for Solitude or Primitive and Unconfined Recreation

The Chiricahua Addition North PWA provides physically challenging recreation that includes hunting, hiking and backpacking. A person may experience a high degree of solitude and isolation from human activities while recreating in this area, a characteristic that greatly contributes to the area's wilderness capability.

Special Features

The northeast portion of this PWA contains several unique rock features and vistas. Opportunities for research include the study of plants and wildlife at Turkey Creek, and environmental education in the Herb Martyr and Turkey Creek areas. Unique wildlife includes rare birds, jaguars and ocelots, Chiricahua leopard frogs, lesser long-nosed bats, and Mexican spotted owl.

Manageability

The Chiricahua Addition North Potential Wilderness Area has adequate access opportunities and no known resource conflicts or encumbrances. Although somewhat isolated from areas of activity, some developed recreation areas are located nearby. The PWA currently does not have any motorized vehicle use, including ATVs. There are no identified boundary changes that would enhance the area's wilderness character.

The Chiricahua Addition North Potential Wilderness Area overall was rated as high for Capability (for individual scores, see appendix E).
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Availability

In the Chiricahua Addition North Potential Wilderness Area, most of the current recreational uses and tourism could continue if the area was designated as wilderness. The Forest Service has a high degree of control over the land, although Customs and Border Patrol also operate on the land. The Chiricahua Mountains contain eight threatened or endangered species that may be located in the PWA and may require habitat restoration and/or monitoring, which could impact the availability of the PWA. Vegetation treatments include planned and unplanned ignitions introduced once every 10 years in accordance with the Chiricahua FireScape. Watersheds within the area are properly functioning, although several springs developments may be found throughout the PWA. The area is committed through permits for livestock grazing on six allotments: Turkey Creek, Upper and Lower Rock Creeks, Pine, Paradise, and Cave Creek. These current authorizations do not conflict with wilderness management or detract from wilderness qualities. There is no potential for timber extraction. There is little or no potential for extraction of locatable minerals. There are no cultural resources that will be affected by wilderness management. The Chiricahua Addition North Potential Wilderness Area is composed entirely of National Forest System lands, as is the majority of land adjacent to the potential boundary. The closest private land is approximately 0.1 miles from the potential wilderness area boundary and may impact the wilderness character of the area.

The Chiricahua Addition North Potential Wilderness Area overall was rated as **high** for Availability (for individual scores, see appendix F).

Need

Wilderness and Nonwilderness Lands in the Vicinity

The Coronado National Forest has eight wilderness areas comprising 339,553 acres or 19 percent of the Forest. Nationally, wilderness comprises 19 percent of National Forest System lands and within the Southwestern Region only 13 percent of these NFS lands are wilderness. The Coronado National Forest currently equals the national average of National Forest System land as wilderness and exceeds the regional average.

The Forest Service evaluated comparable public lands within a 100-mile radius of the potential wilderness area, which is assumed to be approximately a day's drive. Within 100 miles of the Chiricahua Addition North PWA, there are 15 designated wilderness areas totaling about 484,000 acres (see Table 19).

There are significant opportunities for unconfined outdoor recreation experiences outside of the designated wilderness Areas within 100 miles of the Coronado National Forest, including over 4.1 million acres of Federal lands. Nonwilderness lands that provide a wilderness-like setting include primitive and semiprimitive nonmotorized areas, inventoried roadless areas, wilderness study areas, BLM National Conservation Areas, and USFWS National Wildlife Refuges. The combined acres of nonwilderness lands in the vicinity are double the amount of designated wilderness within 100 miles of the Coronado National Forest. Therefore, all potential wilderness areas received a low need rating for this factor.

Table 19. Designated wilderness within 100 miles of the Chiricahua Addition North Potential Wilderness Area

Wilderness Area	Acres
Aravaipa Canyon Wilderness	19,790
Chiricahua National Monument Wilderness	12,161
Chiricahua Wilderness	88,793
Dos Cabezas Mountains Wilderness	11,855
Fishhooks Wilderness	11,400
Galiuro Wilderness	75,585
Miller Peak Wilderness	20,381
Mount Wrightson Wilderness	25,596
North Santa Teresa Wilderness	5,733
Peloncillo Mountains Wilderness	19,244
Pusch Ridge Wilderness	56,743
Redfield Canyon Wilderness	6,206
Rincon Mountain Wilderness	38,611
Saguaro Wilderness	63,258
Santa Teresa Wilderness	28,769
TOTAL	484,126

Visitor Pressure

Increased demand for additional wilderness in both Arizona and New Mexico should be anticipated based on population growth during the period of 1990 to 2000, which exceeded the national growth rate. Assuming Arizona continues to grow at a rate greatly outpacing the national rate (predicted to be about 3 times the national rate), the number of visits to existing wilderness will continue to increase, and Arizona in particular could benefit from additional wilderness. Public demand increases with proximity to the Phoenix and Tucson population centers, which collectively represent 86 percent of the state's population. Substantial consideration should therefore be given to potential wilderness areas within 100 miles of those cities, in an effort to provide for the growing demand. Some additional public demand for wilderness in the Southwestern Region will occur from the influx of people moving to communities in the vicinity of the National Forests. In terms of geographic distribution of wilderness across all Federal lands, the Southwestern Region is underrepresented with 12 percent of Federal land in wilderness acres, as compared with 17 percent nationally. Desirability of the scenic mountainous settings available in the rural communities within and adjacent to national forests in the Southwestern Region will attract new residents and retirees, further contributing to a growth in wilderness visitation. All of the PWAs were rated high for this factor based on high current use on existing wilderness areas, surrounding population increases, and high demand for additional wilderness on the Coronado National Forest.

Primitive Sanctuary for Plants and Wildlife

As part of the forest plan revision process, the Coronado National Forest has developed a list of species that warrant consideration in the population viability evaluation. This species list includes 255 threatened, endangered, sensitive, and highly vulnerable species (G1-G2 or T1-T2) that are known to occur on the Coronado National Forest. Appendix I shows the total number of these species that are known to occur in each potential wilderness area, provided the Forest Service has adequate information on habitat distribution. Although none of these species require a primitive environment to survive, all listed species

would benefit from reduced disturbance. The combined number of threatened, endangered, sensitive, and highly vulnerable species on this PWA rates in the high range (more than 60 species) for this factor.

Capacity of Established Wilderness Areas

There are eight existing wilderness areas and three wilderness study areas (WSA) on the Coronado National Forest. The wilderness areas and WSA range in size from 7,400 acres to 87,700 acres. Accessibility by motor vehicles ranges from easily accessible to remote, hard-to-access wilderness. Trail systems range within wilderness areas from extensive trail systems to very minimal systems. Visitor use is considered high in the wilderness areas adjacent to the Tucson metropolitan area and includes the Pusch Ridge and Mount Wrightson Wilderness Areas. Encounters with other wilderness visitors in both areas are high. For these two areas there are limited management opportunities to accommodate additional use. The Coronado National Forest also has wilderness areas that are remote, difficult to access, and where visitor use is considered low. Here, additional demand could be accommodated without management changes.

Wilderness Areas with Similar Landform and Vegetation

Consideration was given to how the landform and ecological condition of the Chiricahua Addition North Potential Wilderness Area might be broadly similar to existing wilderness areas within the National Wilderness Preservation System. All designated wilderness areas in Arizona and New Mexico were compared using ecological sections and vegetation communities.

The Chiricahua Addition North Potential Wilderness Area is in the Basin and Range Section of the Chihuahuan Semi-Desert Province (Section 321A, McNab and Avers 1994). The Basin and Range Section encompasses 24,270 square miles, of which 749 square miles (approximately 3 percent) occur in 20 designated wilderness areas.

The Chiricahua Addition North Potential Wilderness Area includes 5 of the 16 underrepresented vegetation communities in the Southwestern Region of the Forest Service (see Table 20). Of these five vegetation communities, the Chiricahua Addition North PWA would contribute to wilderness in the following vegetation types: Interior Chaparral (0.2 percent), Madrean Encinal Woodland (1.2 percent), Madrean Pine Oak Woodland (0.3 percent), Mixed Conifer Forest (0.1 percent), and Riparian Areas (0.2 percent). The vegetation communities in this PWA consist of 95.30 percent regionally underrepresented vegetation types, therefore the PWA rates in the high range (more than 90 percent) for this factor.

Table 20. Southwestern Region underrepresented vegetation communities found in Chiricahua Addition North Potential Wilderness Area (PWA)

Underrepresented Vegetation Communities	Acres within Chiricahua Addition North PWA	Percent of Chiricahua Addition North PWA	Percent Addition of Chiricahua Addition North PWA to Wilderness
Interior Chaparral	642	9.3	0.2
Madrean Encinal Woodland	4,963	72.1	1.2
Madrean Pine Oak Woodland	502	7.3	0.3
Mixed Conifer Forest	400	5.8	0.1
Riparian Areas	54	0.8	0.2
Grand Total	6,561	95.3%	2.0%

The Chiricahua Addition North Potential Wilderness Area overall was rated as **high** for Need (for individual scores, see appendix G).

Public Input

Public involvement and input is an essential component of the potential wilderness evaluation process. The draft potential wilderness evaluation reports will be shared with the public for feedback in the summer of 2013, in conjunction with the 90-day public comment period for the revised forest plan. The public feedback will be considered and incorporated into the reports, as appropriate.